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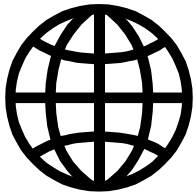

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Beyond the North-South Divide? Cities from the 'Global South' in city networks of global environmental governance

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Abstract

Increasingly, urban areas seek to pursue innovative policies by exchanging knowledge and best practices in city networks. The revolution in communication technologies has facilitated the development and maintenance of such networks. The horizontal character easily leads to the assumption that this form of governance guarantees more equal relationships. However, from a critical reading of the network and flows literature we know that networks are not free of power relations.

Departing from globalization theory and global cities literature, this paper investigates the hypothesis that networks go beyond the traditional North-South Divide. Although many cities located in the 'Global South' are involved in city networks, I argue that this inclusion does not assure equal voices and positions for the 'Global North' and the 'Global South'.

Two city networks for global environmental governance (C40, Metropolis) are investigated. The focus is on power relations connected to financial, informational and ideational flows. The analysis reveals the contributor/receiver linkages and the associated influence on the organizational characteristics of these networks, the exchanges that take place and the normative framework that holds the participating cities together.

The conclusions are framed by theoretical considerations on the significance of cities from the 'Global South' in processes of political globalization.

Introduction

The global governance concept allows for creative thinking about the contributions of a variety of actors (state, market and civil society) and levels (from the local to the global) in the tackling of global problems. "Governance signifies a change in the meaning of government, referring to a new process of governing; or a changed condition or ordered rule; or the new method by which society is governed" (Rhodes 1996: 652-653). "Global governance is conceived to include systems of rule at all levels of human activity – from the family to the international organization – in which the pursuit of goals through the exercise of control has transnational repercussions" (Rosenau 1995: 13). Within the global governance framework, attention is also paid to the changing role of cities. More concretely, it is networked constellations of cities – rather than cities as single entities – that now receive attention. This allows for conceptualizing cities – traditionally linked to *local* problems and policies – as vital actors in *global* governance.

This paper focuses on *city networks*. This concept refers to two distinct realities: (1) networks of local governments in which information, knowledge and best practices on common problems are exchanged and (2) networks of urban centers that are interconnected with each other through flows of information, money, ideas, ... The first category can be understood as networks in which cities (i.e. their local governments) take up a role as *actors*. The second category reveals how cities can be strategic *places* from which global activities are organized (Bouteligier 2009). Globalization processes have stimulated the development of city networks. Borja and Castells have shown how relations between urban centers have been established in order to enable broader spheres of action (Borja and Castells 1997: 203). City networks provide an opportunity for urban areas to play a role in global governance and develop effective urban policies, which explains why city networks have known an upsurge in the last decades (Borja and Castells 1997: 205, Keiner and Kim 2007: 1371). However, recent research also counterbalances this optimism (Keiner and Kim 2007: 1372) by pointing out the difficulties of maintaining these networks.

When *global* city networks – by which I understand city networks that link up cities from both the 'Global North' and the 'Global South' – are discussed, the hypothesis is formulated that these networked configurations go beyond the traditional North-South Divide (e.g. Sassen 2000, Castells 2000b). However, this hypothesis has not been examined systematically and little empirical evidence that supports it has been brought together. Many networks reproduce unequal relations and develop own power hierarchies. This can occur because of differences in the capacity to influence network interactions or because of the division of tasks, resources and burdens (Brenner 2009: 47). Looking at the role of cities of the Global South in

these networks is thus highly relevant. Moreover, because these cities will see the fastest and highest growth in urban population and therefore will determine the world's urban future (UN-Habitat 2008: 4-9).

This paper examines two city networks for global environmental governance: the *World Association of Major Metropolises (Metropolis)* and the *C40 Cities Climate Leadership Group (C40)*. The analysis pays particular attention to internal power relations that are connected to the networks' interactions and flows. The aim is to reveal the contributor/receiver linkages and the associated influence on these networks' organizational characteristics, the exchanges that take place and the normative framework that holds the participating cities together. My findings are based on: non-participatory observation at meetings of both city networks, including their world conferences that gather all the participating cities; interviews with the staff of the networks' secretariats and with city officials of cities in both the Global North and the Global South; official documents of the city networks, and secondary literature. The structure is as follows: a first section clarifies some concepts that will be central to the discussion. Second, the theoretical framework behind the main hypothesis is illuminated. The third part formulates an evaluation scheme for North-South relations in global city networks, which is applied to Metropolis and C40 in the fourth section. In conclusion, I formulate my main findings.

Conceptual clarity

Before framing the topic theoretically, let me introduce some key concepts: informational governance; Global North/Global South; equality and power.

Informational governance

Castells calls the contemporary era the Information Age, because knowledge generation and information processing have become sources of productivity (Castells 2000b: 17). Of course, information and knowledge have been important throughout human history. However, its importance has transformed (Borja and Castells 1997: 204) since knowledge is now managed as a strategic resource (Ergazakis, Metaxiotis, and Psarras 2006: 76). The revolution in information and communication technologies has greatly facilitated this, as it has enabled information to spread instantaneously on a global scale.

In his book *Environmental reform in the Information Age. The contours of informational governance,* Mol brings together literature on the information revolution with literature on changes in environmental governance. Central in his argumentation is the concept of 'informational governance': "the concept implies that for understanding the current innovations and changes in environmental

governance we have to concentrate on the centripetal movement of informational processes, informational resources and informational politics. It is the production, the processing, the use and the flow of, as well as the access to and the control over, information that is increasingly becoming vital in environmental governance practices and institutions" (Mol 2008: 277). Thus, arrangements that have the production and exchange of information and knowledge at their core need to be examined as they create new (power) relations. City networks for global environmental governance are such arrangements and the evaluation further below indeed reveals complex (power) relations resulting from informational flows.

Global North and Global South

Defining the Global North and the Global South is a tricky issue. This dichotomy – and parallel ones like developed/developing countries – is very often used, but creates the illusion that there exist two worlds that are separated by a clear-cut divide. Furthermore, it ignores variations within one world (Eckl and Weber 2007: 17), although numerous indexes and rankings show the heterogeneity (e.g. Prescott-Allen 2001). However, we cannot fully neglect this division when discussing global environmental governance, since literature and the practice of multilateral negotiations have shown that there are still common interests and norms that unite countries in the North and the same is true for countries in the South. For some authors, for example, valuing neoliberal environmentalism bonds the Global North (Okereke 2008). While, according to Williams, the recognition of sustainable development, and common but differentiated responsibility as essential elements in global environmental governance unites the Global South (Williams 2005: 66). Najam states that a shared perception of being "disempowered, marginalized and disenfranchised by the international system" (Najam 2005: 305) connects Southern countries. The existence and activities of the G-77 – a group of now 130 countries – illustrates this. Thus, although it is a simplification of reality (Weiss 2009: 282), it still makes sense to think of a Global North and a Global South in global environmental governance.

Making explicit what these concepts actually encompass remains difficult, especially when we talk about cities. This is because the notion North-South divide mainly refers to nation-states and has little attention for intra-state variations (Eckl and Weber 2007: 8). Differences between rural and urban contexts within a country are thus neglected. Furthermore, classifications of countries do not always fit in a city network context. For example, the North is often equated with the OECD members and the South with non-OECD members (Karlsson, Srebotnjak, and Gonzales 2007: 668). However, this means that, for example, Mexico City is a city of the Global North, although in global city networks it is not necessarily perceived

that way, nor does it present itself as such. This definitional issue has consequences for reality: once a city has been categorized as a city of the Global North, it misses out special assistance (technical, financial) that is provided by the network to cities in the Global South. Moreover, the OECD/Non-OECD categorization is not always followed within global environmental governance. The Kyoto Protocol to the United Nations Framework Convention on Climate Change introduced the distinction between Annex I and non-Annex I countries. Some countries are annex I countries, but are not part of the OECD and vice versa. The list of non-Annex I countries largely corresponds with the list of developing countries in the Montreal Protocol on Substances that Deplete the Ozone Layer. The Ban Amendment to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal defines the OECD-members, the EU and Liechtenstein as one group from which no hazardous waste exports can occur to other countries that are parties to the Basel Convention. Discussions on the statute of some non-Annex I countries to the Kyoto Protocol (e.g. China) illustrate how difficult it is to develop accurate categories and also shows how economic and political developments trigger debates about these categories' legitimacy.

In this paper, I analyze two city networks, which find their origin in different 'world orders'. Metropolis was established in 1984, when the "Brandt-Line"[1] was still valid. The C40 was initiated in 2005. Within those 20 years, much has changed. The Soviet Union collapsed, Asian Tigers emerged, the political system in many Latin American countries changed and the importance of other levels than the nation-state increased. Only the richest and the poorest countries and their cities belong to a clear category – center and periphery, as world system theorists would categorize them – leaving space for a large group of countries and cities, with shifting positions and identities. Thus, the hypothesis that city networks go beyond the traditional divide will most likely be confirmed, simply because (today's) reality is much more complex. Therefore, it is needed to analyze what city networks' internal configurations are, how city networks deal with the (structural) differences between their member cities and how they handle changing positions of member cities.

Equality and power

Equality within international politics, partnerships, alliances and networks is a highly debated issue (e.g. Abrahamsen 2004, Chasek and Rajamani 2003, Clark

[1] The Brandt-Line was formulated in the report "North-South: A Programme for Survival", written in 1980 by a Commission chaired by Willy Brandt (Williams, Meth, and Willis 2009: 2-5) and distinguished a rich North from a poor South.

2003, Fisher and Green 2004, Krishna Dutt 2003). Although strived for, often, equal relations are not a reality (Clark 2003: 120, Huber 2008: 366). The Global South is included, but is at the same time confronted with inequalities in capacity, influence, access to resources and information, etc. (Biermann 2006: 106, Clark 2003: 182). The power concept is central when discussing inequalities. It has been extensively discussed in IR studies, however, in the governance literature it is often neglected or underspecified (Arts and Van Tatenhove 2004: 340). This is even truer when networks are the topic of debate. Although, the horizontal character of city networks easily leads to the assumption that this form of governance guarantees more equal relations, a critical reading of the network and flows literature (Bouteligier 2009) shows that networks are not free of power relations and that inclusion does not guarantee equal voices. To the contrary, governance networks can also replicate traditional power relations (Dingwerth 2008: 55). Consequently, also within a network context the power concept needs to be defined and power relations need to be examined.

Arts and Van Tatenhove define power as "the organisational and discursive capacity [...] to achieve outcomes in social practices" (Arts and Van Tatenhove 2004: 347). This definition allows for a broad conceptualization of power. In the city network context Taylor states that power can encompass both a command or hierarchical function – 'power over' and the notion of 'power to' action or potential. This is because in a network all nodes are connected and interdependent, therefore all nodes have power in some way or another (Taylor 2001). In city networks, power is essentially relational. It is not a given attribute, but relates to the interactions between actors/cities (Alderson and Beckfield 2004: 812-813, Castells 2009: 11, Stanley 2005: 195). In other words, power is not situated in the actors/cities themselves, but power is produced in the network interactions and flows (Robinson 2002: 536) and lies in "techniques of cooperation and inclusion" (Abrahamsen 2004: 1454).

I distinguish three ways in which power is produced in networks. First, although once a network exists, members function in accordance with the network's logic (Castells 2000a: 16), the initial phase is characterized by a struggle to determine a network's goals (Castells 2000a: 16). Those who define these goals, have power, because they set the scene for further actions and engagement, they determine the form and content of legitimate action and agency (Abrahamsen 2004: 1454). Actors in the North are often seen as being able to set the terms, because they have more resources (Abrahamsen 2004: 1454). Second, flows are at the origin of power relations. Some cities initiate flows and others are at the receiving end. With regard to financial flows, the contributor/receiver linkages are mostly clear-cut. With regard to informational and ideational flows, more subtle dynamics are at play.

Information itself can be neutral, however information needs interpretation and processing, and this is where power comes in (Wolman and Page 2002: 479). Those who control and/or coordinate the information flows have power (Jayne 2004: 68). They decide, for example, what a best practice is and determine the norms, values and interests that frame action (Abrahamsen 2004: 1460, Barnett and Finnemore 1999, Castells 2009: 28). The exchange and transfer of best practices, policy lessons, methods and techniques is linked with the transfer of particular ideas about the nature of problems and possible solutions (Bulkeley 2006: 1035). Third, the binary logic of exclusion/inclusion characterizing networks (Castells 2000a: 15) also creates power relations. Those that are excluded from the network are disempowered (Castells 2009: 42, Clark 2003: 17, Swyngedouw 2004: 34). Being included in a network can empower actors in the sense that a network offers learning opportunities and access to otherwise inaccessible actors (Pattberg 2006: 589). Furthermore, also included agents can experience exclusion, for example when their knowledge is subjugated (McFarlane 2006a: 1423). In this respect, several scholars have discussed the persisting knowledge divide (Abrahamsen 2004, Biermann 2006, Clark 2003, Karlsson, Srebotnjak, and Gonzales 2007: 680-681).

Framing the issue theoretically: city network literature on the North-South divide

I distinguish between two kinds of city networks (Bouteligier 2009). Firstly, there are city networks in which local governments exchange information, knowledge and best practices on common problems. Scholars who study these city networks approach the involved *cities as actors* (e.g. Betsill and Bulkeley 2004, Borja and Castells 1997, Keiner and Kim 2007, Toly 2008). Secondly, city networks emerge when various actors (such as MNCs and NGOs) organize their global activities from different urban settings around the world. Cities are linked to each other through material, financial, informational and ideational flows. Scholars who examine this type of city networks conceptualize *cities as places* and call them world cities or global cities (e.g. Castells 2000b, Friedmann 1986, Sassen 2001, Taylor 2004). Both strands of literature have formulated claims on the North-South relations within global city networks, which are introduced in the following section.

Cities as actors: mutuality and reciprocity as key to North-South relations in global city networks

Several authors have identified success factors for city networks in which local governments cooperate with each other (Betsill and Bulkeley 2004, Borja and Castells 1997, de Villiers 2009, Keiner and Kim 2007, Tjandradewi and Marcotullio 2009). What they have in common is that they stress the need for mutuality and

reciprocity, meaning that the cities involved have complementary roles, so that each of them can offer and gain something from the network (Johnson and Wilson 2006: 73). When all network members have the perception that they get advantages out of network participation, they will continue contributing to the network's functioning, thus assuring its continuation. Mutuality and reciprocity can also be seen as indicators of more equal relations and therefore they are relevant for this paper's topic.

At a city network's organizational level, having (1) equal opportunities to benefit from the network and (2) equal opportunities to contribute to the network are necessary conditions for realizing mutuality and reciprocity. This relates to (1) access to informational, financial and human resources and (2) chances to provide information to the network (e.g. occasions to present best practices) and to be involved in network management (e.g. being part of a network's administration and advisory institutions). In other words, at the organizational level, city networks need to ensure that all members have the possibility to participate in an equal way, because this can lead to capacity building as it increases the information available and sets the scene for establishing contacts and receiving support (Biermann 2006: 100). In case there are already constraints here, equality within the network will be hampered. Of course, providing opportunities does not suffice. Network members have to utilize chances to actually take up an active role, which implies a responsibility of the cities themselves.

Mutuality and reciprocity are contestable concepts. Much of the research on city networks and city-to-city cooperation has focused on North-South or South-South exchanges, leaving out the possibility of South-North transfers and learning (McFarlane 2006a: 1416). Indeed, many scholars take unequal relations as a point of departure as they consistently situate the senders of financial, informational and ideational flows in the North and the receivers in the South. Southern cities – with the exception of a couple of Southern 'exemplar cities' like Curitiba in Brazil (Sánchez and Moura 2005) – are only conceptualized as senders in South-South relations (McFarlane 2006a: 1416). However, some scholars approach learning between rich and poor countries in a different way (Bontenbal and van Lindert 2009: 132). They do not assume that historical or existing patterns of unequal relations need to persist or determine today's interactions (McFarlane 2006a: 1417). They see possibilities for South-North exchanges as well. Perhaps not in the form of a direct transfer (McFarlane 2006a: 1431), but, for example, in the form of alternative views and approaches that fuel debates. This broadens the meaning of mutuality and reciprocity (Keiner and Kim 2007, Menju 1999), including less tangible contributions.

Cities as places: what position for Southern cities in global city networks?

Friedmann, Castells and Sassen claim that the network of world and global cities goes beyond the traditional North-South divide. Friedmann attributes primary and secondary world city status to some cities in semi-peripheral countries (Friedmann 1986). Sassen states that cities both in the Global North and in the Global South, are the places where globalization processes materialize (Sassen 2004: 653). Consequently, global city networks' geographies do not equate to old divisions (Sassen 2000: 151). However, she also thinks that the 'mega-city syndrome'[2] acts as a barrier for mega-cities in the developing world in fulfilling the role of global cities (Sassen 2000: 149). Castells is convinced that mega-cities in the Global North and the Global South will function as centers of power in the 21st century (Castells 2000b: 440). The big exception, however, are many Sub-Sahara African cities, that seem to be excluded from global city networks or only fulfill a marginal role (Borja and Castells 1997: 38).

These claims have been criticized both theoretically and empirically. Alderson and Beckfield state that globalization reproduces cross-national patterns of inequality and dependency (Alderson and Beckfield 2004: 844). Taylor criticizes Castells for attributing global city characteristics to mega-cities in general. According to Taylor, there are no credible processes that turn third world mega-cities into future centers of wealth and power. Some third world cities will become new core places, but this will not occur to all third world mega-cities (Taylor 1999). Furthermore, Taylor et al. investigated to what extent world city networks go beyond the North-South divide and come up with mixed results. According to how we understand 'power', the world city network does or does not go beyond the traditional North-South divide. When it comes to domination and command in the global economy, the world city network is dominated by Western cities. However, in terms of network power another geography appears (Taylor et al. 2002). Increasingly, there appears to be a group of cities that perhaps can not be identified as 'full fledged' global cities, however they are places where actors need to be, in order to anticipate and respond to changing dynamics. A city like Hong Kong, for example, is the place where access to Chinese markets can be realized and where a concentration of knowledge that is of importance to work in the Asian Pacific region is concentrated (Taylor 2001).

It can be debated to what extent the global cities literature serves as a good basis for discussing North-South relations because the literature has been criticized for

[2] According to the UN-definition, a mega-city is a city of more than 10 million inhabitants. The majority of megacities are situated in the 'Global South' (UN-Habitat, 2008: 6). According to Sassen, these cities are often burdened with their population size and related problems.

neglecting cities in the South. The methodology used to identify world and global cities and the theoretical construct that is behind it are seen as privileging cities in the North. The literature has been blamed to be rigid, ethnocentric and ahistorical (Shatkin 2007: 4, Short 2004: 45). Indeed, the traditional, narrow economical approach makes that many Southern cities have been neglected (Robinson 2002: 535) and excluded from global city research (van der Merwe 2004). Thus, when the global cities literature barely pays attention to the role of Southern cities in processes of globalization, how can this literature then make plausible judgments about North-South divides in global city networks? This is indeed a pertinent question. However, several scholars have now adopted a more open approach (Short 2004) and discuss the role of Southern cities in processes of globalization (e.g. Amen, Archer, and Bosman 2006, Audirac 2003, Gugler 2004b), proving the usefulness of the global cities framework for discussing North-South relations. Looking at city networks for global environmental governance and discussing the role and function of cities of the Global South in these networks, should contribute to this attempt to integrate Southern cities in global cities research.

Towards an evaluation scheme for North-South relations in global city networks

Although both strands of city network literature make claims about the North-South Divide in global city networks, they do not offer an evaluation scheme that identifies and explains for potential inequalities. The literature on city networks in which local governments cooperate with each other pays a lot of attention to mutuality and reciprocity as key issues in North-South relations, but fails to systematically analyze these. The global cities literature has measured network connectivity and network positioning of various cities to formulate findings on the North-South divide, but offers little explanatory factors. An evaluation scheme needs to be derived from various strands of literature, including literature on North-South parity in international institutions (e.g. Glenn 2008, Krishna Dutt 2003), international regimes and global governance (e.g. Chasek and Rajamani 2003, Dingwerth 2008, Pattberg 2006). Interviews and non-participatory observation at meetings of the two studied city networks further refined the framework. The evaluation scheme that I propose sees three issues as key to power relations in global city networks: capacity, position, and opportunities. Furthermore, these power relations are determined by what city networks do and how cities respond to city network dynamics, but they are also influenced by patterns outside city networks. I will illuminate this in further detail. Table 1 will summarize the evaluation scheme at the end of this section.

Conditions for equal relations provided by the city network

The foundation of a network is a first opportunity to create conditions for equal relations. In this stage, it is essential to set out clear objectives and to bring together actors who could transform into real partners in order to assure that the network has a chance to survive. As mentioned before, a struggle can occur concerning the definition of aspirations (Castells 2000a: 16), which can have consequences for the emergence of power relations within the network (Castells 2009: 45). The necessary steps to be taken in order to ensure conditions for equal relations at the organizational level, can be summarized as follows:

First of all, the city network needs to offer every member the potential to take up a role in the network by guaranteeing the capacity to do so. This issue is related to the provision of resources (material, informational, financial, human), because participation in networks requires many resources: local governments have to invest time, people and money (Stone 2005: 101). In terms of material resources, the Digital Divide is the major barrier that networks need to overcome. Network management is facilitated by the rapid developments in communication and information technologies. Equal access to and the capacity to use telecommunication facilities is therefore key, since disconnectedness results in neglected interests and voices (Keiner and Kim 2007: 1383, McFarlane 2006b: 297). The network therefore needs to follow up on this issue and search for solutions. Informational resources relate to regular communication with all the network's members, which can happen in several ways, but relies very much on the Internet. The provision of financial resources can help members with limited funding of their own to attend network meetings and thus create the ability to participate. A network can also provide human resources to its members in the form of training or capacity building courses.

Second, the city network has to make sure that members from both the North and the South can be part of the network management and this should happen both for the network's administration (e.g. secretariat, regional secretariats, thematic groups) and for the network's advisory bodies (e.g. board of directors) (Dingwerth 2008: 60-66). However, this is only a first step (Fisher and Green 2004: 69), as several scholars have pointed out that involvement in the governing bodies does not guarantee meaningful inclusion (Fisher and Green 2004: 65). Meaningful inclusion refers to the extent to which members can have influence and can contribute to the network.

This brings me to the third way in which equality can be assured in networks: allow for equal opportunities to benefit from and contribute to the network. The implementation of programs and projects needs to be balanced geographically, thus offering cities from all continents the possibility to gain something from network

participation. The perception of a member city that it is contributing to the network in a valuable way is also important for creating an atmosphere of mutuality and reciprocity. According to Johnson and Wilson, contributions from both the North and the South – resulting in mutual learning – is possible, despite large inequalities because there is sufficient professional similarity (Johnson and Wilson 2006: 74-76) between city officials involved in global city networks. This input can take many forms: sharing knowledge on a best practice by giving a presentation at a network's meeting is just one example. More indirectly, cities can influence a network's functioning by setting the frame for action, using a particular discourse (Dingwerth 2008: 60-66). In terms of North-South relations it therefore needs to be asked whether there is room for various discourses or whether the dominant discourse is set by a small group of network members (Stone 2005: 99). In the literature, a Northern discourse is mostly equated to one favoring mainstream narratives of neo-liberal environmentalism, which stresses the use of market mechanisms (Okereke 2008: 44, Williams 2005: 56, 66). A Southern discourse is mostly seen as one that stresses the link between environment and development, provision of technology and capacity building and that focuses on the commitment to sustainable development and common but differentiated responsibility (Williams 2005: 56, 66). A network that pretends to be global should allow for both discourses to play a role (Dingwerth 2008: 60-66). The extent to which a city can implement best practices spread by the network in an independent way – i.e. not simply copying the best practice (Chimni 2004: 19) – but adapting it to local needs is also an indirect indicator of how cities contribute to the network, as they help to rethink solutions in an innovative way (Dingwerth 2008: 60-66).

The extent to which cities make the most of network participation

Providing conditions for equal participation is not enough, cities also have to utilize the opportunities provided by the network. Thus, cities need to make use of the resources offered, have to voice their concerns when they are in a network position that gives them the possibility to do so and have to grasp opportunities to benefit from and contribute to the network. When Southern partners are taking up an active role, old power relations can cease to exist and discourses can change (Najam 2005: 317). This is even more the case when there are attitudes and values of trust, commitment, understanding, openness and flexibility (McFarlane 2006a: 1432).

Participating in an active way in city networks can bring cities several advantages. First, it helps cities strengthen their position within the network and establish good contacts with other member cities. Second, international cooperation helps cities to

establish an international reputation (Menju 1999: 293, Sánchez and Moura 2005) and enables them to give meaning to their cities' projects and policies that goes beyond their territorial and jurisdictional limits (McNeill 2001: 354). Lastly, cities can use opportunities offered by the network to get things done at home. Nevertheless realizing active participation is often easier said than done. This is because cities need to ensure the continuity of their engagement in the network. This can be hampered by elections, changes in personnel, fusions or separations of departments, decreases in budget, changes of priorities, lack of regular communication between departments etc. (Interviewees).

Structural issues influencing North-South relations in city networks

Since city networks do not exist on their own, but are part of a larger global (environmental) governance architecture, internal arrangements often do not suffice to guarantee equality. Literature and findings from field research (non-participatory observation and interviews) show that structural issues influence North-South relations within city networks.

First of all, disequilibria in capacity persist. Many cities in the South still lack sufficient resources (material, informational, financial, human) (Biermann 2006: 106, Dingwerth 2008, Pattberg 2006: 585) or are limited in their actions because of the political system and situation of their country (Gugler 2004a: 18). This can cause a situation of disfranchisement (Fisher and Green 2004) or disempowerment (Stanley 2005: 197). Second, links between cities outside the city network's functioning also influence the relationships within the city networks (e.g. difficult historical relation, competition, strong historical links because of colonial past). For example, literature on cross-national policy convergence indicates that policy transfer is more likely to occur "between countries with strong cultural linkages" (Holzinger and Knill 2005: 790), between like-minded countries (McFarlane 2006a: 1416) or "among those countries that are strongly interlinked in varying transnational networks" (Holzinger and Knill 2005: 791). Third, explicit and implicit hierarchies play a role in framing relations (Chimni 2004: 19, Clark 2003: 120, Eckl and Weber 2007: 7, McFarlane 2006a: 1417) and stereotypes and superficial perceptions frame whether exchanges take place (McFarlane 2006a: 1424).

Table 1 Evaluation scheme for North-South relations in global city networks

	Capacity	**Position**	**Opportunities**
City network	Resources	Balance in participation in management	Equal opportunities to benefit & contribute
Cities	De facto participation & commitment	De facto participation & commitment	De facto participation & commitment
Structural issues	Persisting disequilibria	Links between cities outside network Explicit/implicit hierarchies & stereotypes	Links between cities outside network Explicit/implicit hierarchies & stereotypes

North-South relations in Metropolis and C40

This section analyzes the North-South relations in Metropolis and C40, using the above evaluation scheme. Since both city networks claim to be truly global because they have members from all continents, North-South relations are central to their functioning. Metropolis and C40 recognize inequalities between their members that are the result of differences in capacity, limits in resources, historical relations etc. But they have also created mechanisms to counter these unequal relations and positions.

Metropolis

The World Association of Major Metropolises was founded in 1984 on the initiative of Michel Giraud, the then chairman of the regional council of Île-de-France (the region around Paris). Twelve other cities and regions[3] participated in the meeting and one year later the association was officially created. Today, the network comprises 105 metropolitan governments as active members[4]. They represent cities with a population of over one million or capital cities with more than 250 000 inhabitants. Non-city actors (e.g. business, intergovernmental organizations, academia) can be asked to participate in meetings and/or assist member cities in specific projects. Metropolis has a broad scope, since it covers sustainable urban development, which encompasses economic, social, environmental and cultural issues. "The mission of Metropolis is to accompany cities in mutual learning, innovation, governance, technical/financial assistance, international presence and debate" (www.metropolis.org). In order to realize this, Metropolis has a general

[3] Abidjan, Addis Ababa, Barcelona, Buenos Aires, Cairo, Colombo, London, Los Angeles, Mexico City, New York, Tokyo and Turin.

[4] Geographical distribution (December 2009): Asia-Pacific (44), Africa (24), Europe (18), Latin America & Caribbean (12), North-America (= Canada, USA and Mexico) (7). No US metropolitan governments, except for the one of Atlanta, participate in Metropolis.

secretariat, regional secretariats, a training institute, regional training centers and workshops and meetings are organized on a regular basis. Information sharing occurs at meetings of the Standing Commissions[5], where a limited number of member cities gather together with external actors (intergovernmental organizations, non-governmental organizations, private sector).

Capacity

Metropolis has always had members with varying capacities and resources. It tries to cope with this diversity and create an atmosphere of mutual understanding and exchange. In terms of assuring equal capacity, the General Secretariat communicates with all members regularly, mostly through the Internet (e-mail, e-newsletters, announcements on the website) but in case Internet access is not secured, communication goes through mail. Sometimes financial resources are provided in order to ensure the participation of cities with limited financial capacity in the city network's triennial conventions (Interviewees). There are three official operating languages: English, French and Spanish. Most documents are available in those languages and translation services are provided at meetings, which increases the capacity of representatives to fully participate. Communication is also a task of the Regional Secretariats, which have good knowledge of regional needs. Metropolis has put a lot of effort in increasing human resources of cities by organizing training courses and assistance schemes. Both Northern and Southern cities benefit from the services of the training institute, but when it comes to technical assistance, it is mainly cities from the North helping cities in the South (see Table 2). So here a clear contributor-receiver relation can be distinguished. The same is true for the Global Fund for Cities Development[6], whose pilot projects will be conducted in cities of the South (Antananarivo and Makati) with help from the North (Île-de-France and Barcelona) (www.metropolis.org).

[5] Every three years a Metropolis World Summit takes place, where all the member cities gather to set the agenda for the coming three years. Activities are then organized in Standing Commissions, which have one city as President, one city as Vice-President and a number of participating cities. The President and Vice-President are responsible for assuring progress. Participating cities are cities that engage themselves to attend the meetings because they value the topic of the Standing Commission.

The Standing Commissions for the current period (2009-2011) are: C1: Eco-Regions/Food Safety, C2: Managing Urban Growth, C3: Integrated Urban Governance, C4: Megacities, C5: Partnership for Urban Innovation, C6: Bank of Cities/Global Fund for Cities Development, C7: Metropolis Women International Network.

[6] At the 2005 Metropolis world congress in Berlin, a working group was created to investigate an initiative that could help cities strengthen their financial capability by facilitating funding for investment projects. This Global Fund for Cities Development was then officially launched in October 2009. It aims at assisting cities with limited human, financial and material resources both technically (i.e. in formulating, implementing and monitoring a project) and financially (i.e. assist in getting access to funding and using financial resources in an efficient way).

Table 2 Metropolis Technical Assistance Scheme (www.metropolis.org/metropolis/en/node/63)

Date	Metropolises	Project
2006	Metropolis assisted Puebla	Assistance for the Development of a Municipal Solid Waste Program. There have been one mission in 2006.
2004	Metropolis assisted Brazzaville	Assistance for the Development of a Municipal Solid Waste Program. There have been two missions in 2004.
2004	Metropolis assisted La Paz	Assistance for the Development of a Municipal Solid Waste Program. There have been two missions in 2004.
2003	Metropolis assisted Quito	Assistance for the Development of a Municipal Solid Waste Program. There have been two missions in 2003.
2000/ 2001	Barcelona assisted Guadalajara	Assistance for the Development of a Municipal Solid Waste Program. There have been two missions in 2000/2001.
1998	Barcelona assisted Havana	Mission of Reconnaissance to Develop Havana's System of Land Information for the Planning and Urban Management of the City. This comprised one mission in 1998.
1997	Metropolis assisted Abidjan	Feasibility Study for the Rehabilitation of the Adjouffou Quarter of Port-Bouet. The study was carried out by an African external expert and was financed by Metropolis.
1997	IAURIF assisted Douala	Study of the Development of Infrastructure and Urban Management Techniques in Douala
1996/ 1997	Paris and Melbourne assisted Guangzhou	Improvement of the Transport System in Guangzhou. Four missions were carried out for this program in 1996/1997.
1996/ 1997	Barcelona assisted Cordoba	Strategic Planning for Tourism in the City of Cordoba. This comprised two missions in 1996/1997.
1996/ 1997	Toronto assisted Mexico	Exchanges on the Administrative and Technical Organisation of Planning. Three missions were carried out in 1996/1997.
1995/ 1997 & 1993/ 1994	Paris assisted Bucharest	Assistance for the Reorganisation and Planning of the Bucharest North Railway Station. There were two missions carried out over 1993/1994 and 1995/1997.
1995/ 1997	Barcelona, Lisbon and Paris assisted Havana	Study on Water Cycles, 1995-1997. The study enabled authorities in Havana to assess the current situation regarding the supply and purification of drinking water. The study established short, medium and long-term strategies for the reorganisation of services in charge of managing water cycles. This study was conducted in Havana by Cuban engineers from January 1995 to January 1997. The project was financed by a grant provided by the European Community. Furthermore, it estimated that an investment of US5mn was required to meet the city's needs and proposed a 10 year action plan.
1995/ 1996	Paris assisted Sarajevo	A Study on the Reconstruction and Rehabilitation of Several Districts in Sarajevo, 1995-1996. In 1995, Metropolis was given a grant from the European Union of 150,000 Ecus to implement a reconstruction program for various districts in Sarajevo with the technical, financial and material support of European partner cities. Metropolis directed a committee of Bosnian and European experts who defined and coordinated reconstruction measures.
1993/ 1994	Melbourne assisted Mexico	Town Planning Techniques for the Rapidly-growing Areas of Mexico City. Two missions were carried out in 1993/1994.

Of course, it is the cities' responsibility to apply the capacity they have and make use of the provided resources. Within Metropolis the Iranian cities exemplify this

very well. Although they are not the cities with most capacity, they are very active members, since they use all the capacities they have to spread knowledge gained in Metropolis to other Iranian cities. Furthermore, Iranian city officials attended the last Metropolis triennial convention, despite numerous difficulties faced (e.g. visa problems).

Existing disequilibria come as no surprise in a city network with more than 100 participating cities. Often inequalities are linked to the national context in which cities are embedded and are reflecting structural inequalities that persist on a global scale. Furthermore, there are differences in competences (some cities have a broad, others a limited radius of action), severity of particular problems, the degree of support from the national government to develop innovative policies, etc.

Position

Fourteen cities and regions[7] are recognized as Metropolis' founding members. Of these fourteen, eight were from the North and six from the South. All the Southern founding members have continued membership until today. In the North only three did, however, they fulfill special tasks in the network: Barcelona hosts the General Secretariat, Île-de-France has the Presidency and Montreal is home to the training institute. These three are thus very much involved in coordinating activities and distributing information. As a consequence, they can be conceptualized as the network's "imagineers". They are the driving force behind the network and therefore have a disproportionate share in setting the framework for action (Routledge 2008: 213). As a result, they have relative power over other member cities. Interviews with officials showed that there is indeed a core group of cities – Barcelona, Île-de-France, Montreal and some others – that has assured continuity and performance for more than 20 years. Most of these cities are located in the Global North. However, Metropolis' statutes guarantee balanced representation in the management structure (Table 3). The Board of Directors consists of members representing the metropolises of the various continents. Still, the North fulfills the highest functions – President, first Executive Vice-President and Treasurer. All active members – of whom the majority is situated in the South – together constitute the General Assembly. The Standing Commissions very often have a Presidency in the North and a Vice-Presidency in the South, thus incorporating Southern cities in their organization, albeit in a subordinated position. Of the ten summits between 1984 and 2011, only 3 are hosted by emerging cities or cities in the South: Mexico City (1987), Seoul (2002) and Cairo (2011). In sum, Metropolis tries to create a balance in its internal management;

[7] Abidjan, Addis Ababa, Barcelona, Buenos Aires, Cairo, Colombo, Ile-de-France, London, Los Angeles, Mexico City, Montreal, New York, Tokyo and Turin.

however, the most important functions reside in the North. This can largely be explained by the heavy burden (human & financial resources) that is linked to these tasks.

Interviews with officials showed that some cities lack involvement or do not perform the task they committed themselves to, while others play an unexpected active role. Indeed, there is a large difference between what cities make of their position in the network. The active participation of cities like Mashhad and Seoul, for example, has been valued by approving their application to host regional training centers, thus granting them a coordinating position in the city network. The example of a silent participation of Abidjan in the General Assembly Meeting in Sydney, yet, shows that a position in the network management does not guarantee active contributions to debates. In other words, also when it comes to a cities' position in a network, much depends on what cities themselves decide to do with it.

Structural issues related to positions are more difficult to track. Several interviewees mentioned that the relations between cities outside the city network also influence relations within the network, for example at the point of establishing the network and dividing tasks, but didn't mention concrete examples. Because some cities have developed the reputation of being an international city, implicit hierarchies and stereotypes are created that might result in granting and affirming coordinating positions. Barcelona, for example, – due to its past record on international activities and due to the fact that it houses secretariats of other global city networks as well – easily acquired the extension of its mandate to host Metropolis' General Secretariat.

Opportunities

Opportunities to benefit from and contribute to the network are created for both cities in the North and cities in the South. However, a closer look at real practices reveals that within Metropolis a 'receiving end' and a 'giving end' can be identified. As mentioned before, assistance (e.g. technical assistance scheme, Global Fund for Cities Development) is mainly offered to cities in the South by cities in the North. Moreover, when we look at the meetings of the Metropolis Standing Commission Ecoregions during the period 2006-2008, we notice that more cities from the South than cities from the North participated, but that a large part of the presentations was done by cities from the North (Metropolis 2008: 7-36), thus creating more attention for their best practices. Furthermore, more Southern than Northern

cities[8] participated in the training session at the Metropolis International Training Institute in Montreal (Metropolis 2008: 26).

Metropolis member cities greatly vary in terms of participation, some cities never show up, thus disconnecting themselves from knowledge networks, while other cities make most of their membership by attending many meetings, thus creating for themselves opportunities to benefit from (i.e. learn from others) and contribute to (if not in a presentation, then in the debates held) the network.

Also with regard to the creation of opportunities linkages between cities outside Metropolis sometimes seem to play a role. The first project of the Global Fund for Cities Development will be implemented in Antananarivo with the help of Île-de-France. Both cities already developed a partnership in 1989 and Île-de-France has a representative to the mayor of Antananarivo since 2000. Within the framework of this *coopération décentralisée,* projects have been developed regarding good governance, transport, health, tourism, economic growth, environment, education etc. (Conseil régional d'île-de-France s.d.). The close relationship and good knowledge of the challenges in Antananarivo might have facilitated the choice to conduct the pilot project of the Global Fund for Cities Development there. Furthermore, there is a special relationship between Île-de-France and other cities of the *francophonie.*

C40

In 2005, the then mayor of London, Ken Livingstone, initiated the C40 Cities Climate Leadership Group (C40). Today, the network has 40 participating cities[9], which have committed themselves to action and 19 affiliated cities[10], of which a large number functions as exemplar cities. From the start, the goal was to increase performance and to work as a catalyst for action. The C40 secretariat mainly has a coordinating function, which means that the cities themselves need to take initiative (e.g. propose to host a workshop, formulate suggestions about the issues that need to be addressed). Conferences and workshops are issue specific and

[8] Participants: Abidjan, Cotonou, Bamako, F.C.T. Abuja, Ile-de-France, Abomey, Thies, Cairo, Montreal, Kathmandu, Dakar, Seoul, Kati, Porto Alegre, Kinshasa, Toronto, Ouagadougou, Makati.

[9] Addis Ababa, Athens, Bangkok, Beijing, Berlin, Bogotá, Buenos Aires, Cairo, Caracas, Chicago, Delhi, Dhaka, Hanoi, Houston, Hong Kong, Istanbul, Jakarta, Johannesburg, Karachi, Lagos, Lima, London, Los Angeles, Madrid, Melbourne, Mexico City, Moscow, Mumbai, New York, Paris, Philadelphia, Rio de Janeiro, Rome, São Paulo, Seoul, Shanghai, Sydney, Tokyo, Toronto, Warsaw.

[10] Amsterdam, Austin, Barcelona, Basel, Changwon, Copenhagen, Curitiba, Heidelberg, Ho Chi Minh City, Milan, New Orleans, Portland, Rotterdam, Salt Lake City, San Francisco, Santiago de Chile, Seattle, Stockholm, Yokohama.

every two years all C40 cities gather at a summit[11]. The C40 cooperates with a variety of external actors. Involving business actors and financial institutions mainly solves the lack of financial, material and human resources. Financing mechanisms are set up and experts are engaged to teach cities how to develop, implement and monitor projects. External actors are also needed for the organization of the C40 conferences, workshops and meetings. The first summit, for example, was supported by BP, EDF Energy and Thames Water RWE Group. ICLEI, The Climate Group and BT (a communications company) were the associated partners. Since August 2006, the Clinton Climate Initiative (CCI) functions as the C40's implementing arm. CCI projects have a market-based approach (e.g. create purchasing alliances), which allows for attracting resources that otherwise would not be available for cities. Within the framework of the Energy Efficiency Building Retrofit Program (EEBRP), for example, a partnership between C40 cities and four large energy service companies and five large banks was developed. The companies provide products and services at a favorable price, so that cities are capable of making existing buildings more energy efficient. In exchange, the companies get a market of (at least) 40 large cities. The banks provide the necessary loans, which will be paid back with the energy savings.

Capacity

The C40 was initiated by London, because this city noticed that its own capacity wasn't sufficient to deal with climate change. In the first place, it lacked knowledge of best practices. Second, serious investments needed to be made in case a progressive climate change policy would be developed, thus the city needed to look for new financing mechanisms (Interviewees). Involving exemplar cities needed to solve the knowledge problem, engaging other major cities had to allow for better access to financial and material resources (e.g. through the establishment of purchasing alliances). The C40 tries to improve the capacity of all its members, not only the capacity of Southern cities. The Carbon Finance Capacity Building (CFCB) Program is the only exception. The program aims to give megacities in the South the know-how necessary to use carbon financing for city projects that reduce greenhouse gas emissions (www.lowcarboncities.info/home).

At this moment in time, the majority of the C40 cities participates rather actively and acknowledges that this participation helps them to increase their capacity. The various programs and projects developed by the C40 and its partners focus on the

[11] London Summit 2005 – New York Summit 2007 – Seoul Summit 2009. Workshop on Transport and Congestion, London December 2007 - Workshop on Airports and Climate Protection, Los Angeles April 2008. World Ports Conference, Rotterdam July 2008 – Conference on Climate Change, adaptation and mitigation, Tokyo October 2008 – Conference on the launch of the "Carbon Finance Capacity Building Programme in Emerging Mega Cities of the South", Basel February 2009 – Climate Summit for Mayors, Copenhagen December 2009.

particular requests of each city. This is exemplified by the first Urban Life workshop in Toronto, where Arup (a firm of designers, planners, engineers, consultants and technical specialists) worked together with senior city officials, utility companies and city residents to develop a plan on how to make neighborhoods greener (www.c40cities.org/initiatives/index.jsp). Together with CCI, numerous cities have now started projects addressing their needs: Delhi has established a waste program; Johannesburg, Bogota, Sao Paulo, and Mexico City have BRT-projects running; and building retrofit projects have been initiated in Chicago, New York, Bangkok, Mumbai, and Johannesburg (www.clintonfoundation.org/what-we-do/clinton-climate-initiative/our-approach/cities/), to give just a few examples. Furthermore, several cities participate very actively in the C40 workshops, conferences and summits. Jakarta is just one example of a city that uses the opportunity to increase its knowledge and access to resources through involvement in these events.

Debates at C40 events highlight the structural inequalities in capacity that remain. Cities in the South often have fewer competences than cities in the North. Furthermore, the former are confronted already with the consequences of climate change in a more dramatic way and at the same time they face extreme poverty and other problems in their cities that need to be addressed quickly. In other words, many C40 cities in the South face more severe problems, however have less resources and capacity to deal with them.

Position

The C40 management structure is dominated by Northern cities. This is illustrated by the composition of the body that sets the agenda and discusses membership: the Steering Committee[12] and by the location of the C40 secretariat (London), the Chair (from 2005 until 2008 London, now Toronto) and the CCI headquarters (New York). An explanation for assigning the most important functions to these cities is that a more extensive engagement is expected from this group, which requires the investment of time, money and people (Interviewees). The same is true for hosting summits, conferences and workshops, which – up to now – mainly took place in the North (New York, London, Los Angeles, Rotterdam, Tokyo, Seoul, Basel, Copenhagen). However, the future might bring change, since the next Summit will take place in São Paolo and a rotation system for the Chair is discussed (Interviewees).

The extraordinary performance of Seoul as host of the third C40 Summit exemplifies how cities can make the most of their position within the network and

[12] Cities that form the Steering Committee: London, New York, Toronto, Los Angeles, São Paolo, Johannesburg, Berlin, Tokyo and Seoul.

– as a consequence – can strengthen their position. Several officials expressed – both informally and formally – their satisfaction with the organization of the C40 Summit in Seoul. Seoul indeed took the opportunity to show its capacity to organize such an international meeting, but also to propose a progressive climate change policy. And it seems that São Paolo – the host of the next summit – is moving in the same direction. It has already adopted an ambitious climate change action plan, which will allow the city to step up as a leading city that commits to action, thus strengthening its position. This illustrates the shifting positions of emerging cities.

In order to establish the C40 (then C20) old linkages between some cities were highly relevant. The existing bond between the M4 – the mayors of London, Berlin, Paris and Moscow – was used when support for establishing a new city network needed to be found (Interviewees). This exemplifies how previous relations influence city network dynamics. However, these relations did not determine the expansion of the C20 to the C40 or do not determine positions in the C40. Indeed, apart from personal contacts between former London mayor Ken Livingstone and other mayors around the world, the involvement of the Clinton Foundation helped to further expand the group of cities that wanted to be involved, thus assuring a global geography (Interviewees). And of the M4 only two are in the Steering Committee (London and Berlin).

Opportunities

All participating cities can benefit from the programs and projects set up by the C40 and its partners, with the exception of the Carbon Finance Capacity Building Programme, which addresses cities in the Global South in order to help them acquire the know-how to use Carbon Finance (www.lowcarboncities.info). However, there is a disproportion when it comes to contributions. The majority of best practices in the database on the C40 website are coming from Northern cities (www.c40cities.org). And mainly Northern affiliate cities are seen as 'exemplar' cities (Interviewees). In terms of presentations at meetings, the picture is more balanced, since contributions come from both the North and the South, with some cities, like Jakarta, engaging very actively and highlighting problems of cities in the South.

Of course, again it is the task of the cities to take opportunities. Ten out of forty cities were not present at the Summit in Seoul, thus excluding themselves from chances to contribute to and benefit from the network. Jakarta and Delhi, to the contrary, are two of the most active cities of the South, who have attended most of the workshops, conferences and summits and very often also made presentations at these meetings. At this point in time, 'non-activity' of cities seems to be better manageable for the C40 than for a network of more than 100 members like

Metropolis. Indeed, interviewees recognized that some cities disappoint in terms of commitment, but also stated that this can be followed up and addressed rather quickly, since it concerns only a limited amount of cities. The future will have to show whether non-active cities will be excluded from the network or whether they will change their behavior.

The role of implicit hierarchies and stereotypes came to the fore during an informal conversation at the Seoul Summit. Apparently, some Northern cities automatically expect best practices to come from other Northern cities, leaving out the possibility of South-North learning. Although this is difficult to analyze scientifically, the database on best practices seems to confirm this, since it mainly contains best practices from the North. Furthermore, only some 'usual suspects' – i.e. cities that have an internationally recognized good record on environmental governance – like Curitiba (Brazil) seem to be the exceptions. Furthermore, a lot of the work done by the C40 and CCI is linked to a discourse of neoliberal environmentalism. The introduction and imposition of such a discourse in the South has been criticized, especially when Southern actors feel the pressure to accept this discourse and way of working in order to receive resources and support, since this implies an (implicit) hierarchy of which type of activities is most valuable (Okereke 2008).

Conclusion

Contrary to what the literature states, city networks do not entirely go beyond the North-South divide. The two studied networks take measures to guarantee access and participation of cities from all continents, but structural inequalities persist at three levels.

First, the North largely determines the framework for action. This is reflected in the type of activities that is privileged (market-based approach) and the functions taken up by Northern cities. Opportunities are created for cities of the South to participate, but the North keeps outweighing the South. Second, there are imbalances in providing best practices, which strengthens the position of the North and can cause unequal relations when knowledge is reproduced because it is perceived to be superior (Wilson and Johnson 2007: 256). So, there still exists a 'giving end' (forerunner cities) and a 'receiving end' (Keiner and Kim 2007: 1393) in global city networks and this division mainly coincides with the North-South divide. So, there is a "poverty of influence" (Najam 2005: 305) on the side of the South. Third, structural inequalities that exist outside the network influence relations in the network.

The analysis of North-South relations in C40 and Metropolis, however, also shows that instead of talking about cities of the North and cities of the South, it might be more useful to distinguish between three types of cities when analyzing a city network: global cities, emerging global cities and outlying cities (see Table 5). Although all three cities are included in a city network (contrary to disconnected cities), they have been assigned different tasks and they perform in different ways.

Table 5 Cities & city networks

Included in network	Global cities Emerging global cities Outlying cities
Excluded from network	Disconnected cities

Global cities are those cities that can set the framework for action, commit resources to the network and have controlling or coordinating functions (e.g. Barcelona in Metropolis and London in the C40). Emerging global cities are those cities that reflect a shifting identity, they might have limits with regard to capacity and/or resources, but they make most out of their network participation (e.g. Mashhad in Metropolis, Jakarta in C40). Outlying cities are connected to a city network, could even have a relatively important position within the network, but have a limited participation or are non-active (e.g. Abidjan in Metropolis, Caracas in C40). Each city – irrespective of whether it is based in the Global North or in the Global South – can belong to one of these three categories, thus making the distinction between North and South less relevant when looking at the internal dynamics and relations of city networks. The activities of Seoul and São Paolo in the C40 illustrate this.

Furthermore, Southern cities might find opportunities to strengthen their position through network participation, since these networks are potential sources of empowerment. As mentioned, city networks offer a lot of resources (mostly informational and human, but also easier access to financial resources), strengthen cities' capacities to deal with complex (environmental) problems and make that cities establish relationships with actors that would otherwise be inaccessible (e.g. international consultancies, financial institutions). The advantages city networks offer enable member cities to realize innovative environmental policies. This will strengthen their position within their country, region and in the future perhaps even in the world, because they will be part of a group of actors that is moving forward in tackling global environmental challenges.

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